

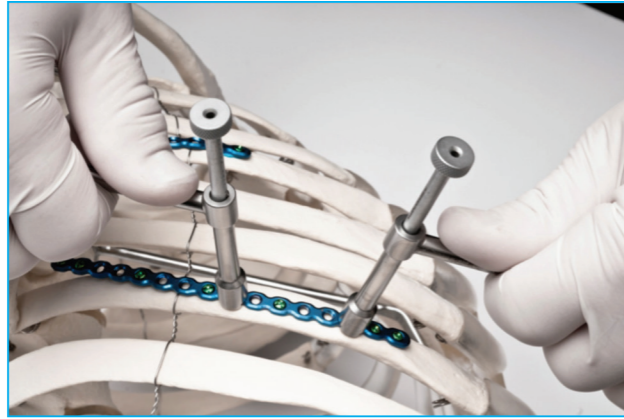
## RibFix Blu® Thoracic Fixation System

### No Failures, Even Under Exaggerated Respiratory Loads<sup>1,2,3</sup>

Zimmer Biomet offers a rib fixation system designed by trauma surgeons used in the stabilization and rigid fixation of rib fractures in the chest wall including sternal reconstructive surgical procedures, trauma or planned osteotomies. The system may be used in normal and poor bone to promote bone union.

### Features of the RibFix Blu®

- A simple, yet comprehensive, system designed with new tools and techniques to improve efficiencies in the operating room
- Innovative plate-to-bone approximation tools that allow for the precise placement of plates along the rib
- MIS instrumentation available to accommodate plating of hard-to-reach rib fractures
- Self drilling screws
- Streamlined universal plate selection



## Pectus Bar Pectus Excavatum

**Pectus excavatum is a chest disorder occurring in approximately one of every 1,000 children. This congenital deformity is characterized by a concave, “funnel” shaped chest. The inward facing sternum can apply pressure to the vital organs of the chest, resulting in restricted organ growth and shortness of breath. Mildly present at birth, pectus excavatum usually becomes more serious throughout childhood, often magnifying considerably during the teenage years.**

Previously, surgical correction of this deformity was made through an invasive procedure requiring resection of cartilage and bone. Dr. Donald Nuss, in cooperation with Biomet Microfixation, developed a minimally invasive surgical procedure and Pectus Bar Implant to remodel the chest wall over a two-to-three year period.

### Features

- Bar's rounded ends and blunt edges discourage tissue destruction during implant insertion
- Pectus Bars come in a variety of lengths, ranging from 7 inches (17.8cm) to 17 inches (43.2cm) to accommodate most pectus excavatum correction procedures.
- Instruments in the Pectus System are designed to increase simplicity during the Nuss Procedure.
- Storage container conveniently houses the entire range of pectus implants and instruments.



## Cardio Thoracic Sternalock® 360 Sternalock® Blu Ribfix Blu® Pectus Bar



### References:

1. ZB Internal Testing Report, LT1474, fatigue testing of RibFix Blu plate and screw constructs. \*The estimate for the amount of cycles representative of fracture healing is based on 141 breaths per minute. Bench testing is not indicative of clinical performance.

2. ZB Internal Testing Report, LT1476, Ribfix Blu plate and screw construct in cadaver bone testing. Bench testing is not indicative of clinical performance.

3. ZB Internal Testing Report, LT1477, RibFix Blu plate and screw construct in cadaver bone testing. Bench testing is not indicative of clinical performance.

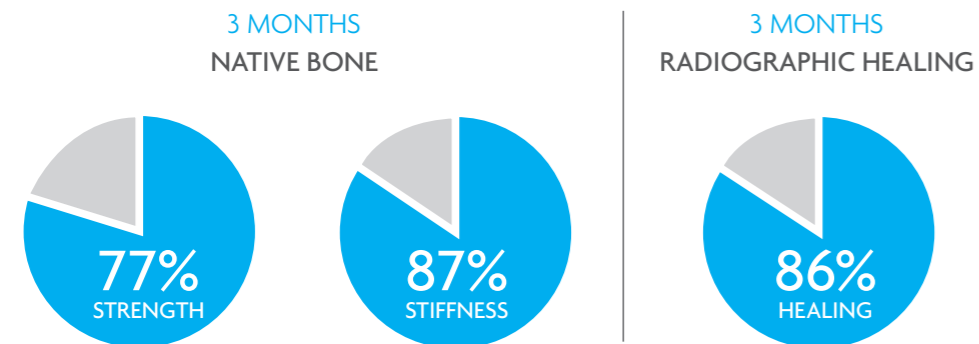
For more information, please visit [www.zbthoracic.com](http://www.zbthoracic.com)

## SternaLock® 360 Poor Bone Health

This innovative sternal closure system is designed to approximate, compress and rigidly fixate the sternum following open-heart procedures in patients with poor bone quality.



**STRONG IS IN THE DATA**  
SternaLock® 360 led to rapid sternal healing<sup>1</sup>



Animals implanted with SternaLock® 360 demonstrated strength (781 N/mm) and stiffness (893 N/mm) that were similar to those of native bone and bridging bone that was similar in appearance to normal bone (4.3/5.0).

Data acquired from an animal study.

### References:

1. ZB SL360 Animal Study Design Team Review Slides. Data on file. For more information, please visit [www.zbthoracic.com](http://www.zbthoracic.com)

## SternaLock® Blu Primary Closure System

Don't let sternal recovery take away from your life-saving procedures. Let rigid sternal fixation be the signature of your masterpiece.

We offer a portfolio of rigid fixation systems for use in the stabilization and fixation of fractures of the chest wall following sternotomy and sternal reconstructive surgical procedures. SternaLock® Blu is specifically designed by cardiothoracic surgeons for primary sternal closure following median sternotomies for open-heart procedures.

### Benefits of Rigid Fixation

- Increased stability
- Greater strength
- Reduced sternal separation
- Superior bone healing
- Reduced pain and narcotic usage

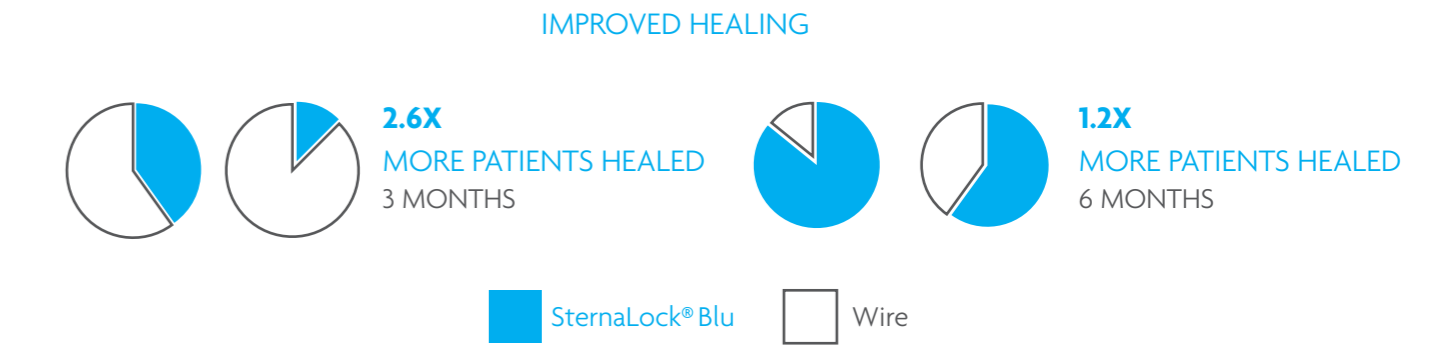
### Features of the SternaLock® Blu Rigid Fixation System

- Rigid fixation system for use following sternotomy or sternal reconstructive procedures
- Patent pending cuttable cross-sections for emergent re-entry
- Uniquely designed thin plates for anatomical fit
- Cancellous screws designed for the sternum
- Specially designed instrumentation

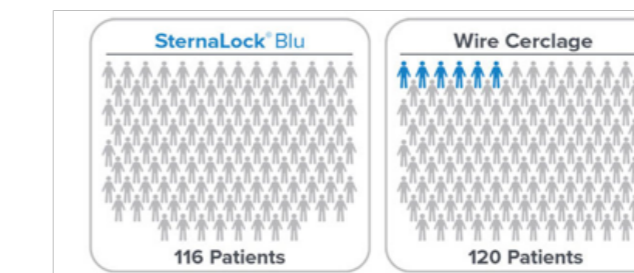


## SternaLock® Blu Study

In the SternaLock® Blu Study, the gold standard for assessing bone healing was used to evaluate sternal healing. CT scans at three and six months demonstrated that patients treated with SternaLock® Blu experienced improved and faster healing than patients treated with wire cerclage. At 3 months, 2.6x more patients with SternaLock® Blu had sternal healing than wire cerclage patients, and by 6 months, 80% of SternaLock® Blu patients had sternal healing. The use of SternaLock® Blu also mitigated the negative impact on sternal healing of various patient risk factors, including age, BMI and smoking.



At six months, the overall sternal complication rate was 0% in patients treated with SternaLock® Blu and 5% in patients treated with wire cerclage. These sternal complications resulted in multiple readmissions, 11 reoperations, and an additional 94 days of hospital stay. An analysis of risk factors for sternal complications revealed that the only predictor of sternal complications in this study was the method of sternal closure, and patients closed with wire cerclage were 11.5x more likely to have a sternal complication than SternaLock® Blu patients.



**0% vs 5%**

### FEWER STERNAL COMPLICATIONS

Patients treated with SternaLock® Blu experienced fewer sternal complications (p + 0.03).<sup>1</sup>

### References:

1. CR 07125 (Clinical Study Report) SternaLock® Blu Study, 2014-15, an evaluation of rigid plate fixation in supporting bone healing: a prospective, multi-center trial of 236 total patients undergoing full midline sternotomy. For more information, please visit [www.zbthoracic.com](http://www.zbthoracic.com)